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Administration and Management

Aviation Weather Services, NWSPD 10-8

CENTER WEATHER SERVICE UNIT SITE REVIEW PROGRAM

NOTICE: This publication is available at: http://www.nws.noaa.gov/directives/.

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SUMMARY OF REVISIONS: Supersedes NWS Instruction 10-814, *Center Weather Service Unit (CWSU) Site Review Program*, and dated March 26, 2012. Changes are necessary out of cycle to accommodate the next phase of the CWSU Site Review Program and take advantage of lessons learned during the previous site reviews.

Changes include:

1. Chapter 3—Wording updated so reviews occur once every three years, but giving ASB the ability to perform "off cycle" reviews as needed.
2. Chapter 3.1—Wording updated to reflect coordination between ASB and Regions.
3. Chapter 4.2—Removed. No longer performing remote site reviews.
4. Chapter 6—Removed any finding in CCFP section as reason for "underperforming". The CCFP criteria will now be consistent with the rest of the criteria.
5. Chapter 6.1.1—Removed. No longer performing remote site reviews.
6. Chapter 6.4.1—Removed. No longer performing remote site reviews.
7. Chapter 6.5—Wording updated to reflect the changes in Chapter 3.

//Signed// 6/3/13

Christopher S. Strager Date
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1. Purpose. This directive establishes general procedures for conducting reviews for quality assurance of services and products provided by National Weather Service (NWS) Center Weather Service Unit (CWSU) to the Federal Aviation Administration (FAA). CWSU support to the FAA is detailed in NWSI 10-803.

2. General. NWS CWSU support is designed to improve aviation safety and enhance efficient flow of air traffic by forecasting and monitoring adverse weather. Efficiency is promoted by maintaining close coordination with traffic managers whose decisions affect the flow of air traffic through the National Airspace System (NAS). Quality assurance of CWSU services and products results in improved services to the FAA.

3. Site Reviews. Each CWSU will receive a scheduled on-site review at least every third year and their products and services documented. Input will be gathered by on-site observations, and/or by interviewing the appropriate FAA representatives. The three year review cycle will be determined by ASB and coordinated through the regions at least 30 days prior to the review occurring. ASB may schedule "off cycle" reviews through the region at any time when requested by FAA or NWS Headquarters. If an "off cycle" review is needed, 30 days of notice to the unit being reviewed and their region is still required.

3.1 Notification of Site Review. By the end of March of the calendar year, the schedule of site reviews for that year is determined and published. The published schedule, along with every revision, is provided to the FAA CWSU Contract's Officer Technical Representative (COTR) for forwarding to the Air Route Traffic Control Center (ARTCC) Facility Managers, the Traffic Management Unit (TMU) Supervisor, and the regional FAA Quality Assurance Program Managers. The schedule is also provided to the the OCWWS Aviation Services Branch Chief, the Regional Aviation Meteorologists (RAMs), and the WFO and CWSU MICs.

4. CWSU Site Review Overview . The function of the CWSU Site Review Team is to assess individual CWSU services and products and to report results to the NWS and FAA management.

4.1 Review Team. The CWSU Site Review Team consists of two participants – a member from ASB and a RAM. A NWS Senior Executive, if available, or designate may also attend. The RAM and NWS Senior Executive cannot be from the region that is being reviewed. The team will proceed as planned even if the Senior Executive, or designate, cannot participate.

4.1.1 Other Participants. In addition to the Site Review Team, both the MIC of the "parent" WFO, the MIC of the AAWU when appropriate, and the MIC of the CWSU can accompany the Site Review Team to provide information to the reviewers, but they do not participate as reviewers. The CWSU MIC will not participate in any interviews. Regional headquarters managers may also observe the review, but will have no input.

5. Initial CWSU Site Reviews (Fiscal Year (FY) 2009). Initial Site Reviews were conducted at each CWSU in FY 2009. These reviews were used as a "baseline" evaluation and provided CWSUs with insight into the review process and to program expectations. Findings and recommendations were identified and tracked. Findings were also used to determine the baseline for the Quality Verification Rating (QVR) which will be used in future reviews.

5.1 Determining QVR. Eight Service Categories or Routine Assessment Listings (RAL) are used to evaluate a CWSU. The RALs are:

- Stand-up Briefings
- On-Demand Briefings
- TMU Support
- TRACON Support
- Tower Support
- Center Weather Advisory (CWA)/ Meteorological Impact Statement (MIS)
- CCFP Tracking
- Standard Operating Procedure (SOP)

The acceptable quality level (AQL) for each category or RAL is 85%. Based on a scale of 1 to 10 where 10 equals 100% when converted to a percentage, one finding will drop a category to 90% and two findings will drop a category to 80% which is below the AQL of 85%.

Each section also has a point value assigned to it ranging from 4 to 20 points depending on the perceived importance of that section. The "points earned" section(s) are determined by multiplying your RAL percentage by the total points possible in that section. For example, a RAL of 90% in a 20 point section would have the site earn 18 points in that section. This process is completed for each of the eight sections. Once all sections are completed, the points are totaled and the Quality Verification Rating (QVR) for the entire review is calculated by adding the sections together. The sheet used to determine QVR can be found at

https://ocwws.weather.gov/cwsu/resources/QA_Assessment_Review_Crosswalk.pdf

The QVR worksheet has eight sections. The first section (ARTCC Briefing) is section A and the last section (CWSU SOPs) is section H. Each section also has eight squares which are assigned a number from 1 to 8 which will correspond with the proper question being asked. The number of each square is as follows: consistency (1), timeliness (2), accuracy (3), training (4), product (5), process (6), misc. (7) and equipment (8).

6. CWSU Site Review Program. Individual elements of the CWSU services and products will be evaluated and any findings will be tabulated to determine a Quality Verification Rating (QVR). If a site does not meet the criteria items listed below they will be considered "underperforming":

- Total QVR score of 94% or better
- A RAL of 85% or greater in each section (one finding or less per RAL)

6.1 Review Process. The CWSU Site Review is conducted over 1-2 days. Upon arrival to the facility, the site review team should meet with the Traffic Management Officer (TMO), appropriate members of the ARTCC staff, and the WFO MIC. The initial meeting should include a briefing by the CWSU Review Team explaining the purpose of the visit, procedure and review plan. Participation from the ARTCC TMU and Sector Managers/Supervisors is necessary to get an accurate evaluation of the services provided by the CWSU. When the primary TRACON is within a reasonable distance from the ARTCC, the CWSU Site Review Team should go to the TRACON and interview Traffic Management Personnel. Tower personnel should also be interviewed when possible to do so.

In addition, the CWSU MIC will provide an in-briefing to the site review team detailing CWSU operations and changes since the last site review visit including actions taken to address any findings from previous site reviews.

6.2 CWSU Observations. Ideally, the review team will evaluate two standup briefings, preferably one each in the morning and afternoon. Furthermore, the team will observe the CWSU operations for as long as possible. This observation may include interactions between the CWSU and the FAA including scheduled briefings, on-demand briefings, and the issuance of any CWSU product.

CWSUs will be evaluated using the CWSU Site Review Questions and Checklist (Appendix A).

6.3 Interviews. The Site Review Team will interview appropriate FAA representatives. The interviews should follow the CWSU Site Review Checklist (Appendix A) and responses should be noted on the checklist. The FAA COTR can request the FAA to schedule the FAA interviews. The team will ask FAA personnel to provide examples of how the CWSU meteorologist assists, or does not assist, the FAA in improving safety and efficiency of the NAS. Specific examples will be encouraged.

6.4 Exit Briefing for Reviews. Upon completion of the on-site portion of the CWSU Site

Review, the Site Review Team will provide the TMO, appropriate members of the ARTCC staff, WFO MIC and CWSU MIC with an exit briefing. The briefing should include a discussion of preliminary findings.

6.5 Final Report. The Site Review Team will provide a written report and QVR score to the following within two weeks of the end of the review:

- FAA CWSU COTR (COTR will provide a copy of the report to the appropriate FAA personnel)
- NWS OCWWS Director
- NWS Regional Director of the CWSU
- NWS Regional Service Division Chief of the CWSU
- NWS Regional Aviation Meteorologist of the CWSU
- WFO/AAWU MIC
- CWSU MIC

ASB will be responsible for sending out the final report and keeping a record of the report on file along with the QVR score.

6.6 Mitigation of Underperforming Element(s). If any element(s) of the CWSU Site Review is deemed underperforming, the WFO and CWSU MIC will provide a written Element Improvement Plan to the ASB Branch Chief within 30 days of receipt of the final report. The Element Improvement Plan should include planned actions to improve the underperforming element(s) with a timeline.

The NWS Region, WFO and CWSU will work together and coordinate with ASB to successfully mitigate any underperforming elements within 90 days of the final written report. If the underperforming elements still exist after 90 days a new Element Improvement Plan will need to be submitted to ASB. If a second plan is needed it's likely that unit will receive an "out of cycle" review the following calendar year.

Appendix A
CWSU Site Review Questions and Example QVR Worksheet

The following link (http://ocwws.weather.gov/cwsu/index.shtml) contains examples of questions that can be used when talking with FAA Traffic Managers. Some pertain more to ARTCC personnel while others would be more useful when talking with tower or TRACON managers. This is not meant to be a complete list of questions, nor is it a list of questions that must be asked. The intent is to provide help and guidance to site review team members for generating their own questions.

Due to the small amount of data and questions asked regarding the CCFP and Product section (CWAs and MISs) the review team can use the monthly metrics numbers to support the review process. The team can only go back to the month after the previous review so units are not cited twice for the same issue. For the Anchorage CWSU (ZAN) review the CCFP section will be omitted since they are unable to participate.

For the CWA and MIS section metrics the correction rate needs to be kept as low as possible. For sites that have a correction rate of less than 5% no finding should occur. If the correction rate is between 5 and 10% a finding could be issued based on what the team determines during the review. If a correction rate is greater than 10% a finding should be issued unless the team or CWSU MIC being reviewed can prove corrections were not the fault of the unit such as equipment malfunction.

1. Example QVR Worksheet:

NWS QA ASSESSMENT/REVIEW CHECKLIST

1. LOADED BY:	NAME HERE					3. DATE	
2. QVR SCORE:	95.0%					MM/DD/YYYY	
4. REVIEWERS:	Team Member's Name		Team Member's Name				
	Team Member's Name		Team Member's Name				
5. CWSU SITE LOCATION	XXXXXX		6. TOTAL NUMBER OF FINDINGS				3
7. MEASURE		8. AREA		9. SERVICE CATEGORY			
CONSISTENCY		PRODUCT		Section A--ARTCC Briefings (12 points total)			
TIMELINESS		PROCESS					
ACCURACY		MISC					
TRAINING		EQUIPMENT					
TOTAL FINDINGS PER SECTION			0	RAL Score	100.0%	Points Earned	12.0
CONSISTENCY		PRODUCT	X	Section B--On-Demand Briefings (12 points total)			
TIMELINESS	X	PROCESS					
ACCURACY		MISC					
TRAINING		EQUIPMENT					
TOTAL FINDINGS PER SECTION			1	RAL Score	90.0%	Points Earned	10.8
CONSISTENCY	X	PRODUCT	X	Section C--TMU Support (20 points total)			
TIMELINESS		PROCESS					
ACCURACY		MISC					
TRAINING		EQUIPMENT					
TOTAL FINDINGS PER SECTION			1	RAL Score	90.0%	Points Earned	18.0
CONSISTENCY		PRODUCT		Section D--TRACON Support (8 points total)			
TIMELINESS		PROCESS					
ACCURACY		MISC					
TRAINING		EQUIPMENT					
TOTAL FINDINGS PER SECTION			0	RAL Score	100.0%	Points Earned	8.0
CONSISTENCY		PRODUCT		Section E--Tower Support (8 points total)			
TIMELINESS	X	PROCESS					
ACCURACY		MISC	X				
TRAINING		EQUIPMENT					
TOTAL FINDINGS PER SECTION			1	RAL Score	90.0%	Points Earned	7.2
CONSISTENCY		PRODUCT		Section F--CWSU CWAs & MISs (4 points total)			
TIMELINESS		PROCESS					
ACCURACY		MISC					
TRAINING		EQUIPMENT					
TOTAL FINDINGS PER SECTION			0	RAL Score	100.0%	Points Earned	4.0
CONSISTENCY		PRODUCT		Section G--CWSU CCFP (12 points total)			
TIMELINESS		PROCESS					
ACCURACY		MISC					
TRAINING		EQUIPMENT					
TOTAL FINDINGS PER SECTION			0	RAL Score	100.0%	Points Earned	12.0
CONSISTENCY		PRODUCT		Section H--CWSU SOPs (4 points total)			
TIMELINESS		PROCESS					
ACCURACY		MISC					
TRAINING		EQUIPMENT					
TOTAL FINDINGS PER SECTION			0	RAL Score	100.0%	Points Earned	4.0